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Lee

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(54) **METHOD AND APPARATUS FOR  
ENCODING INTERLACED MACROBLOCK  
TEXTURE INFORMATION**

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5,929,915 \* 7/1999 Cho ..... 348/416  
5,991,453 \* 11/1999 Kweon et al. .... 382/250  
6,026,195 \* 2/2000 Eifrig et al. .... 382/236  
6,035,070 \* 3/2000 Moon et al. .... 382/243  
6,055,330 \* 4/2000 Eleftheriadis et al. .... 382/154  
6,069,976 \* 5/2000 Kim ..... 382/239

#### FOREIGN PATENT DOCUMENTS

0577365 1/1994 (EP) .

\* cited by examiner

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(56) **References Cited**

#### U.S. PATENT DOCUMENTS

5,623,310 4/1997 Kim .

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(57) **ABSTRACT**

A method for padding interlaced texture information on a reference VOP to perform a motion estimation detects whether said each texture macroblock of the reference VOP is a boundary block or not. After the undefined texture pixels of the boundary block are extrapolated from the defined texture pixels thereof by using a horizontal repetitive padding, a transparent row padding and a transparent field padding sequentially, an undefined adjacent block is expanded based on the extrapolated boundary block.

**14 Claims, 6 Drawing Sheets**

